UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Rey 1459

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

# NOTICE OF ALLOWANCE AND FEE(S) DUE

22850 7590 05/28/2010

ALEXANDRIA, VA 22314

05/28/2010

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET

EXAMINER HAN, SHENG

ART UNIT PAPER NUMBER

1793 DATE MAILED: 05/28/2010

 APPLICATION NO.
 FILINO DATE
 FIRST NAMED RIVERTOR
 ATTORNEY DOCKET NO.
 CONFIRMATION NO.

 10/523,070
 08/11/2005
 Hiroshi Yagi
 265011US2PCT
 8376

TITLE OF INVENTION: MICROREACTOR AND METHOD OF PRODUCING THE SAME

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(8) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	08/30/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FFE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This appropriate. All further c indicated unless correcte maintenance fee notificat	correspondence includir d below or directed oth	or trans ng the F nerwise	smitting the ISSU atent, advance or in Block 1, by (a	ders and notification ) specifying a new o	of m	aintenance fees woondence address;	rill be and/or	mailed to the current r (b) indicating a sepa	nould be completed where correspondence address as rate "FEE ADDRESS" for
CURRENT CORRESPONDE	NCE ADDRESS (Note: Use Bi	iock I for a	any change of address)		Note Fee(: pape have	: A certificate of s) Transmittal. Thi rs. Each additional its own certificate	mailing s certif l paper of mai	g can only be used for ficate cannot be used for , such as an assignment lling or transmission.	r domestic mailings of the or any other accompanying nt or formal drawing, must
		v2010 AND I	MAIER & NI			_			
									(Depositor's name)
									(Signature)
									(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVEN		TOR ATTORN		RNEY DOCKET NO.	CONFIRMATION NO.	
10/523,070 TITLE OF INVENTION:	08/11/2005 MICROREACTOR AT	ND ME	THOD OF PROD	Hiroshi Yagi UCING THE SAME			2	65011US2PCT	8376
APPLN, TYPE	SMALL ENTITY	ISS	SUE FEE DUE	PUBLICATION FEE D	UE	PREV. PAID ISSUE	FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	•	\$1510	\$300		\$0		\$1810	08/30/2010
EXAMI	INER		ART UNIT	CLASS-SUBCLASS					
HAN, SHENG			1793	422-186220	_				
"Fee Address" indi- PTO/SB/47; Rev 03-0; Number is required.  3. ASSIGNEE NAME AN	ordence address (or Cha v/122) attached. cation (or "Fee Address 2 or more recent) attach ND RESIDENCE DATA cas an assignee is ident in 37 CFR 3.11. Comp	inge of C " Indica ied. Use	Correspondence  tion form of a Customer  E PRINTED ON T		nativesingles or a attor ll be per type he pag an a	ely, firm (having as a gent) and the name neys or agents. If or inted.  e) tent. If an assignessignment.	memb es of u no nam ee is id	p to p to get is 3	ocument has been filed for
Please check the appropri	ate assignee category or	categor	ries (will not be pr	inted on the patent):		Individual 🚨 Co	rporati	ion or other private gro	up entity 🚨 Government
4a. The following fee(s) are submitted:    Issue Fee   Publication Fee (No small entity discount permitted)   Advance Order - # of Copies				4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)  A check is enclosed.  Payment by reoffic and. Form PTO 2038 is attached.  The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form).					
a. Applicant claims	us (from status indicated SMALL ENTITY statu	ıs. See 3	37 CFR 1.27.					ITTY status. Sec 37 CF	R 1.27(g)(2). e assignee or other party in
interest as shown by the n	ecords of the United Sta	ites Pate	nt and Trademark	Office.	raut U	е аррисайт, а геда	stered :	autorney or agent; or th	e assignee or other party in
Authorized Signature						Date			
Typed or printed name					Registration No.				
This collection of informa an application. Confident submitting the completed this form and/or suggestic Box 1450, Alexandria, Vi	ation is required by 37 C iality is governed by 35 application form to the ons for reducing this bui irginia 22313-1450. DC	FR 1.3: U.S.C. USPTO rden, sh	11. The information 122 and 37 CFR O. Time will vary tould be sent to the SEND FEES OR O	n is required to obtain 1.14. This collection i depending upon the chief Information O OMPLETED FORM	or re s esti indivi ffice S TC	etain a benefit by the mated to take 12 redual case. Any co r, U.S. Patent and THIS ADDRESS	ne publ ninutes mment Traden	lic which is to file (and is to complete, including is on the amount of tin nark Office, U.S. Depa D TO: Commissioner f	by the USPTO to process) g gathering, preparing, and ne you require to complete artment of Commerce, P.O. for Patents, P.O. Box 1450,

Box 1450, Alexandria, Virginia 22 Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



# UNITED STATES PATENT AND TRADEMARK OFFICE

#### UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandra, Virgima 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO. CONFIRMATIO			
10/523,070	08/11/2005	Hiroshi Yagi	265011US2PCT 8376			
22850	7590 05/28/2010		EXAMINER			
OBLON, SPIVA	AK, MCCLELLAND	HAN, SHENG				
1940 DUKE STR		ART UNIT	PAPER NUMBER			
ALEXANDRIA,	VA 22314	1793				
		DATE MAILED: 05/28/201	0			

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 643 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 643 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

# Application No. Applicant(s) 10/523 070 YAGI ET AL. Notice of Allowability Examiner Art Unit SHENG HAN 1793 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. This communication is responsive to 2/12/10. The allowed claim(s) is/are 1-5,7,8,18-22 and 30-35. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). b) ☐ Some\* c) ☐ None of the: a) 🔯 All 1. A Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). \* Certified copies not received: \_\_\_\_\_. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. Attachment(s)

U.S. Patent and Trademark Off	ice
PTOL-37 (Rev. 08-06)	

1. | Notice of References Cited (PTO-892)

Paper No./Mail Date

of Biological Material

2. Notice of Draftperson's Patent Drawing Review (PTO-948)

4. T Examiner's Comment Regarding Requirement for Deposit

Information Disclosure Statements (PTO/SB/08).

5. Notice of Informal Patent Application

 Interview Summary (PTO-413), Paper No./Mail Date .

9. ☐ Other .

7. X Examiner's Amendment/Comment

8. X Examiner's Statement of Reasons for Allowance

#### DETAILED ACTION

### **EXAMINER'S AMENDMENT**

 An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a letter by the Applicant's attorney in response to the previous Office Action.

The application has been amended as follows:

Please rejoin Claims 19-22.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Claims 1-5, 7, 8, 18-22, 30-35 are directed to an allowable product. Pursuant to the procedures set forth in MPEP § 821.04(b), claims 19-22, depending from claim 18 previously withdrawn from consideration as a result of a restriction requirement, are

Art Unit: 1793

hereby rejoined and fully examined for patentability under 37 CFR 1.104. Claims 23-29, 36-58 have NOT been rejoined.

#### Allowable Subject Matter

 Claims 1-5, 7, 8, 18-22, 30-35 are allowed. The following is an examiner's statement of reasons for allowance: the previous rejection was overcome with an English translation.

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHENG HAN whose telephone number is (571)270-5823. The examiner can normally be reached on Monday-Thursday, 8:00-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Melvin Curtis Mayes can be reached on 571-272-1234. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic

Application/Control Number: 10/523,070 Page 4

Art Unit: 1793

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sheng Han Examiner Art Unit 1793

May 21, 2010

/Melvin Curtis Mayes/ Supervisory Patent Examiner, Art Unit 1793